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| **GLCE** | **ITEM**  **NUMBER** | **ALL**  **STUDENTS** | **AESWD** | **SWD** | **DPS** | **MICHIGAN** | **AVERAGE**  **PERCENT**  **PROFICIENT** |
| **RATIONAL NUMBER OPERATIONS** | | | | | | | |
| **MULTIPLY AND DIVIDE FRACTIONS** | | | | | | | |
| **N.MR.06.01 Understand division of fractions as the inverse of multiplication, e.g., if 4/5 ÷ 2/3 =\_\_\_ ■, then 2/3 • \_\_\_= 4/5 , so ■ = 4/5 X 3/2 =12/10 .** | **1** | **57** | **56** | **62** | **44** | **49** | **35%** |
| **2** | **13** | **14** | **10** | **35** | **49** |
| **N.FL.06.02 Given an applied situation involving dividing fractions, write a mathematical statement to represent the situation.** | **3** | **28** | **27** | **29** | **42** | **61** | **32%** |
| **4** | **35** | **38** | **24** | **30** | **40** |
| **N.MR.06.03 Solve for the unknown in equations such as 1/4 ÷\_\_\_ ■ = 1, 3/4 ÷ \_ = 1/4 , and 1/2 = 1 • ■\_\_\_ .** | **5** | **69** | **70** | **67** | **61** | **64** | **43%** |
| **6** | **16** | **18** | **10** | **32** | **48** |
| **N.FL.06.04 Multiply and divide any two fractions, including mixed numbers, fluently.** | **7** | **11** | **12** | **5** | **18** | **35** | **13%** |
| **8** | **14** | **15** | **10** | **22** | **37** |
| **REPRESENT RATIONAL NUMBERS** | | | | | | | |
| **N.ME.06.05 Order rational numbers and place them on the number line.** | **53** | **27** | **29** | **19** | **31** | **49** | **27%** |
| **N.ME.06.06 Represent rational numbers as fractions or terminating decimals when possible, and translate between these representations.** | **54** | **10** | **10** | **10** | **23** | **40** | **10%** |
| **N.ME.06.07 Understand that a fraction or a negative fraction is a quotient of two inte54gers, e.g., - 8/3 is -8 divided by 3.** | **55** | **72** | **73** | **71** | **69** | **78** | **72%** |
| **INTEGERS & RATIONALS: ADD, SUBTRACT** | | | | | | | |
| **N.MR.06.08 *Understand integer subtraction as the inverse of integer addition. Understand integer division as the inverse of integer multiplication.\**** | **61** | **23** | **23** | **19** | **29** | **52** | **23%** |
| **N.FL.06.09 *Add and multiply integers between -10 and 10; subtract and divide integers using the related facts. Use the number line and chip models for addition and subtraction.\**** | **9** | **45** | **47** | **38** | **51** | **74** | **39%** |
| **10** | **33** | **37** | **19** | **37** | **63** |
| **N.FL.06.10 Add, subtract, multiply and divide positive rational numbers fluently.** | **11** | **46** | **51** | **29** | **49** | **68** | **33%** |
| **12** | **19** | **19** | **19** | **21** | **41** |
| **GLCE** | **ITEM**  **NUMBER** | **ALL**  **STUDENTS** | **AESWD** | **SWD** | **DPS** | **MICHIGAN** | **AVERAGE**  **PERCENT**  **PROFICIENT** |
| **RATIONAL NUMBER OPERATIONS (CONTINUED)** | | | | | | | |
| **FIND EQUIVALENT RATIOS** | | | | | | | |
| **N.ME.06.11 Find equivalent ratios by scaling up or scaling down.** | **27** | **34** | **37** | **24** | **38** | **62** | **39%** |
| **28** | **43** | **47** | **29** | **51** | **69** |
| **DECIMAL, PERCENT, RATIONALS** | | | | | | | |
| **N.FL.06.12 Calculate part of a number given the percentage and the number.** | **13** | **27** | **27** | **24** | **31** | **51** | **20%** |
| **14** | **12** | **12** | **10** | **23** | **36** |
| ***N.MR.06.13 Solve contextual problems involving percentages such as sales taxes and tips.\**** | **62** | **21** | **25** | **10** | **24** | **44** | **39%** |
| **N.FL.06.14 For applied situations, estimate the answers to calculations involving operations with rational numbers.** | **29** | **57** | **58** | **57** | **64** | **79** | **44%** |
| **30** | **31** | **34** | **19** | **39** | **58** |
| **N.FL.06.15 Solve applied problems that use the four operations with appropriate**  **decimal numbers.** | **31** | **38** | **40** | **33** | **41** | **62** | **26%** |
| **32** | **14** | **15** | **10** | **13** | **32** |
| **CALCULATE RATES** | | | | | | | |
| **A.PA.06.01 Solve applied problems involving rates, including speed, e.g., if a car is going 50 mph, how far will it go in 3 1/2 hours?** | **33** | **54** | **56** | **48** | **59** | **77** | **40%** |
| **34** | **26** | **27** | **19** | **20** | **29** |
| **EXPRESSIONS AND EQUATIONS** | | | | | | | |
| **VARIABLES, COMBINE LIKE TERMS** | | | | | | | |
| **A.FO.06.03 Use letters, with units, to represent quantities in a variety of contexts, e.g., y lbs., k minutes, x cookies.** | **15** | **43** | **42** | **43** | **46** | **62** | **33%** |
| **16** | **23** | **19** | **38** | **23** | **26** |
| **A.FO.06.04 Distinguish between an algebraic expression and an equation.** | **17** | **28** | **27** | **29** | **48** | **58** | **33%** |
| **18** | **37** | **38** | **33** | **41** | **49** |
| **A.FO.06.05 Use standard conventions for writing alge-braic expressions, e.g., 2x + 1 means “two times x, plus 1” and 2(x + 1) means “two times the quantity (x + 1).”** | **39** | **39** | **42** | **29** | **50** | **64** | **39%** |
| **A.FO.06.06 Represent information given in words using algebraic expressions and equations.** | **35** | **12** | **12** | **10** | **18** | **27** | **18%** |
| **36** | **24** | **25** | **24** | **20** | **36** |
| **A.FO.06.07 Simplify expressions of the first degree by combining like terms, and evaluate using specific values.** | **40** | **37** | **41** | **24** | **36** | **55** | **37%** |
| **GLCE** | **ITEM NUMBER** | **ALL STUDENTS** | **AESWD** | **SWD** | **DPS** | **MICHIGAN** | **AVERAGE**  **PERCENT**  **PROFICIENT** |
| **EXPRESSIONS AND EQUATIONS (continued)** | | | | | | | |
| **REPRESENT LINEAR FUNCTIONS** | | | | | | | |
| **A.RP.06.08 Understand that relationships between quantities can be suggested by graphs**  **and tables.** | **44** | **24** | **29** | **10** | **39** | **48** | **24%** |
| **A.PA.06.09 *Solve problems involving linear functions whose input values are integers; write the equation; graph the resulting ordered pairs of integers, e.g., given c chairs, the “leg function” i*s *4c; if you have 5 chairs, how many legs?; if you have 12 legs, how many chairs?\**** | **42** | **53** | **56** | **43** | **57** | **76** | **53%** |
| **A.RP.06.10 Represent simple relationships between quantities using verbal descriptions, formulas or equations, tables, and graphs, e.g., perimeter-side relationship for a square, distance-time graphs, and conversions such as feet to inches.** | **45** | **29** | **26** | **38** | **26** | **40** | **29%** |
| **SOLVE EQUATIONS** | | | | | | | |
| **A.FO.06.11 *Relate simple linear equations with integer coefficients, e.g., 3x = 8 or x + 5 = 10, to particular contexts and solve.\**** | **19** | **43** | **41** | **48** | **50** | **69** | **50%** |
| **20** | **56** | **59** | **48** | **59** | **69** |
| **A.FO.06.12 Understand that adding or subtracting the same number to both sides of an equation creates a new equation that has the same solution.** | **21** | **41** | **48** | **19** | **43** | **42** | **39%** |
| **22** | **37** | **42** | **19** | **46** | **47** |
| **A.FO.06.13 Understand that multiplying or dividing both sides of an equation by the same non-zero number creates a new equation that has the same solutions.** | **23** | **40** | **38** | **48** | **44** | **61** | **39%** |
| **24** | **37** | **38** | **33** | **38** | **43** |
| **A.FO.06.14 Solve equations of the form ax + b = c, e.g., 3x + 8 = 15 by hand for positive integer coefficients less than 20, use calculators otherwise, and interpret the results.** | **41`** | **22** | **25** | **14** | **34** | **52** | **22%** |
| **GLCE** | **ITEM NUMBER** | **ALL STUDENTS** | **AESWD** | **SWD** | **DPS** | **MICHIGAN** | **AVERAGE**  **PERCENT**  **PROFICIENT** |
| **PROPERTIES OF 3D SHAPES** | | | | | | | |
| **CONVERT IN MEASUREMENT SYSTEMS** | | | | | | | |
| **M.UN.06.01 Convert between basic units of measurement within a single measurement system, e.g., square inches to square feet.** | **52** | **38** | **41** | **29** | **38** | **61** | **38%** |
| **M.PS.06.02 Draw patterns (of faces) for a cube and rectangular prism that, when**  **cut, will cover the solid exactly (nets).** | **25** | **22** | **26** | **10** | **43** | **66** | **31%** |
| **26** | **40** | **41** | **38** | **48** | **59** |
| **M.TE.06.03 Compute the volume and surface area of cubes and rectangular prisms given the lengths of their sides, using formulas.** | **37** | **26** | **27** | **29** | **34** | **48** | **17%** |
| **38** | **7** | **8** | **5** | **14** | **23** |
| **CONNECTIONS** | | | | | | | |
| **USE EXPONENTS** | | | | | | | |
| **N.ME.06.16 *Understand and use integer exponents, excluding powers of negative bases; express numbers in scientific notation.\**** | **56** | **40** | **37** | **52** | **47** | **58** | **40%** |
| **UNDERSTAND RATIONALS** | | | | | | | |
| **N.ME.06.17 Locate negative rational numbers (including integers) on the number line; know that numbers and their negatives add to 0, and are on opposite sides and at equal distance from 0 on a number line.** | **57** | **47** | **47** | **48** | **43** | **63** | **47%** |
| **N.ME.06.18 Understand that rational numbers are quotients of integers (non zero denominators), e.g., a rational number is either a fraction or a negative fraction.** | **58** | **29** | **27** | **33** | **28** | **31** | **29%** |
| **N.ME.06.19 Understand that 0 is an integer that is neither negative nor positive.** | **59** | **54** | **56** | **48** | **66** | **79** | **54%** |
| **N.ME.06.20 Know that the absolute value of a number is the value of the number ignoring the sign; or is the distance of the number from 0.** | **60** | **33** | **33** | **33** | **45** | **67** | **33%** |
| **UNDERSTAND COORDINATE PLANE** | | | | | | | |
| **A.RP.06.02 Plot ordered pairs of integers and use ordered pairs of integers to identify points in all four quadrants of the coordinate plane.** | **43** | **39** | **41** | **33** | **48** | **69** | **39%** |
| **GLCE** | **ITEM NUMBER** | **ALL STUDENTS** | **AESWD** | **SWD** | **DPS** | **MICHIGAN** | **AVERAGE**  **PERCENT**  **PROFICIENT** |
| **APPLY BASIC PROPERTIES** | | | | | | | |
| **G.GS.06.01 Understand and apply basic properties of lines, angles, and triangles, including: triangle inequality; relationships of vertical angles, complementary angles, supplementary angles; congruence of corresponding and alternate interior angles when parallel lines are cut by a transversal; ) interior angles; know that the sum of the exterior angles of a convex polygon is 360º.** | **48** | **22** | **23** | **19** | **25** | **44** | **22%** |
| **CONNECTIONS (CONTINUED)** | | | | | | | |
| **CONGRUENCE AND TRANSFORMATIONS** | | | | | | | |
| **G.GS.06.02 Understand that for polygons, congruence means corresponding sides and angles have equal measures.** | **49** | **41** | **40** | **48** | **60** | **71** | **41%** |
| **G.TR.06.03 Understand the basic rigid motions in the plane (reflections, rotations, translations), relate these to congruence, and apply them to solve problems.** | **50** | **31** | **30** | **33** | **36** | **50** | **31%** |
| **G.TR.06.04 Understand and use simple compositions of basic rigid transformations, e.g., a translation followed by a reflection.** | **51** | **19** | **18** | **24** | **19** | **29** | **19%** |
| **UNDERSTAND PROBABILITY** | | | | | | | |
| **D.PR.06.01 Express probabilities as fractions, decimals, or percentages between 0 and 1; know that 0 probability means an event will not occur and that probability 1 means an event will occur.** | **46** | **9** | **10** | **5** | **13** | **22** | **9%** |
| **D.PR.06.02 Compute probabilities of events from simple experiments with equally likely outcomes, e.g., tossing dice, flipping coins, spinning spinners, by listing all possibilities and finding the fraction that meets given conditions.** | **47** | **38** | **40** | **33** | **41** | **65** | **38%** |